

individually, without detaching the plurality of chips from the portion of the semiconductor wafer, each section of interposer having a plurality of bonding pads near an outer periphery of the section, such that each bonding pad lies near the contact pattern area of the corresponding one of the plurality of chips;

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(c) wire bonding each bonding pad to a respective one of the contacts on the front surface of the corresponding one of the plurality of chip whereby wires extend from the bonding pads to the contacts;

(d) applying an encapsulant to encapsulate the wires on each of the plurality of chips; and

(e) cutting the encapsulated chips from the semiconductor wafer.

19. (New) A method according to claim 18, wherein step (c) includes bonding one end of each one of said wires to a respective bonding pad using one of the group consisting of micro resistant welding and ultrasonic bonding.

20. (New) A method according to claim 18, wherein step (b) includes providing an elastomer between each of the plurality of chips and the respective interposer on the chip.

21. (New) A method according to claim 18, wherein the portion of the semiconductor wafer includes the whole semiconductor wafer.

22. (New) A method according to claim 18, wherein one end of each wire is bonded to a respective bonding pad of the interposer using ultrasonic bonding, and the other end of each wire is bonded to a respective contact of the chip using ultrasonic bonding.

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23. (New) A method according to claim 18, wherein each said section of the interposer has edges and wherein step (c) includes bonding one of the wires extending from a bonding pad of one said section so that said one of the wires is oriented at an angle other than 90 degrees from any edge of said one said section.

24. (New) A method of assembling a plurality of semiconductor chips, comprising the steps of:

(a) providing a portion of a semiconductor wafer containing the plurality of chips thereon, each of the plurality of chips having a contact pattern area including a pattern of contacts on a surface of the chip;

(b) assembling a sheet including a plurality of interposers to said portion of said semiconductor wafer so that each said interposer is assembled to an associated one of the plurality of chips, without detaching the plurality of chips from the portion of the semiconductor wafer, each said interposer having a plurality of bonding terminals near an outer periphery of the interposer, such that each bonding terminal of each said interposer lies near the contacts of the one of the plurality of chips associated with that interposer;

(c) wire bonding each bonding terminal to a respective one of the contacts on the front surface of the corresponding one of the plurality of chips whereby wires extend from the bonding pads to the contacts;

(d) applying an encapsulant to encapsulate the wires on each of the plurality of chips; and

(e) cutting the encapsulated chips from the semiconductor wafer.

25. (New) A method according to claim 24, wherein step (c) includes bonding one end of each one of said wires to a respective bonding terminal using ultrasonic bonding.

26. (New) A method according to claim 24, wherein step (b) includes providing an elastomer between each of the plurality of chips and the interposer associated with that chip.

27. (New) A method according to claim 24, wherein the portion of the semiconductor wafer includes the whole semiconductor wafer.

28. (New) A method according to claim 24, wherein one end of each wire is bonded to a respective bonding terminal of the interposer using ultrasonic bonding, and the other end of each wire is bonded to a respective contact of the chip using ultrasonic bonding.

29. (New) A method according to claim 24, wherein each said section of the interposer has edges and wherein step (c) includes bonding one of the wires extending from a bonding pad of one said section so that said one of the wires is oriented at an angle other than 90 degrees from any edge of said one said section.

30. (New) A method of assembling a plurality of semiconductor chips, comprising the steps of:

(a) providing a semiconductor wafer containing the plurality of chips thereon, each of the plurality of chips having a contact pattern area including a pattern of contacts on a surface of the chip;

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(b) assembling a sheet including a plurality of interposers to said semiconductor wafer so that each said interposer is assembled to an associated one of the plurality of chips, without detaching the plurality of chips from the semiconductor wafer, each said interposer having a plurality of bonding terminals near an outer periphery of the interposer, such that each bonding terminal of each said interposer lies near the contacts of the one of the plurality of chips associated with that interposer;

(c) wire bonding each bonding terminal to a respective one of the contacts on the front surface of the corresponding one of the plurality of chips whereby wires extend from the bonding pads to the contacts;

(d) applying an encapsulant to encapsulate the wires on each of the plurality of chips; and

(e) cutting the encapsulated chips from the semiconductor wafer.

31. (New) A method according to claim 30, wherein step (c) includes bonding one end of each one of said wires to a respective bonding terminal using ultrasonic bonding.

32. (New) A method according to claim 30, wherein step (b) includes providing an elastomer between each of the plurality of chips and the interposer associated with that chip.

33. (New) A method according to claim 30, wherein one end of each wire is bonded to a respective bonding terminal of the interpose using ultrasonic bonding, and the other end of each wire is bonded to a respective contact of the chip using ultrasonic bonding.

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34. (New) A method according to claim 30, wherein each said section of the interposer has edges and wherein step (c) includes bonding one of the wires extending from a bonding pad of one said section so that said one of the wires is oriented at an angle other than 90 degrees from any edge of said one said section.
